## **ELECTRICAL GENERAL NOTES**

- 1. ALL WORK MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST CHICAGO ELECTRICAL CODE RULES AND ORDINANCES, CITY OF CHICAGO DEPARTMENT OF ELECTRICAL WIRING AND COMMUNICATIONS REQUIREMENTS, BUREAU OF BRIDGES, AND CHICAGO BUREAU OF ELECTRICITY (BOE) STANDARDS, DRAWINGS, DETAILS AND ALL APPLICABLE SPECIFICATIONS/REQUIREMENTS FOR COMPLETE AND APPROVED ROADWAY AND UNDERPASS LIGHTING INSTALLATIONS.
- REFER TO CIVIL AND STRUCTURAL DRAWINGS FOR STAGING DIAGRAMS AND PHASES OF CONSTRUCTION.
  COORDINATE ALL DEMOLITION OF EXISTING AND INSTALLATION OF PROPOSED ELECTRICAL WORK SUCH AS
  INSTALLATION OF EXPANSION/DEFLECTION FITTINGS, LIGHT POLES, HANDHOLES, MANHOLES, CONTROLLERS,
  ETC., WITH ROADWAY CONSTRUCTION STAGES.
- 3. A STAGING SCHEDULE FOR MATERIAL AND EQUIPMENT REMOVAL, INSTALLATION, AND APPROXIMATE DATE OF PROPOSED ENERGIZING OF PERMANENT LIGHTING SYSTEMS MUST BE SUBMITTED PRIOR TO THE COMMENCEMENT OF WORK TO ASSURE COORDINATION OF THE WORK SCHEDULE.
- 4. ALL INFORMATION FOR EXISTING ITEMS SHOWN ON THE DRAWINGS ARE BASED ON FIELD OBSERVATIONS AND AVAILABLE DOCUMENTS, AND ARE NOT GUARANTEED TO BE COMPLETE AND/OR TOTALLY ACCURATE. THE CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS AND EQUIPMENT LOCATIONS IN THE FIELD PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO WILL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK AS PART OF THIS CONTRACT. INCLUDE IN THE PROPOSAL ANY RELOCATION OR ALTERATION OF EXISTING ELECTRICAL SYSTEMS, EQUIPMENT OR COMPONENTS WHICH ARE REQUIRED TO CLEAR THE NEW CONSTRUCTION, ADDITIONS OR ALTERATIONS TO BE PERFORMED.
- 5. NOTIFY THE ENGINEER, IN WRITING, OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND NEW WORK, OR BETWEEN ELECTRICAL WORK AND THE WORK OF OTHER TRADES PRIOR TO SUBMITTING PROPOSAL. LACK OF SUCH NOTIFICATION WILL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY SUCH WORK REQUIRED TO COMPLY WITH THESE REQUIREMENTS.
- 6. THE QUANTITIES OF ALL MATERIALS AS INDICATED ON THESE PLAN DRAWINGS ARE APPROXIMATIONS ONLY. THE CONTRACTOR MUST FIELD VERIFY ALL LENGTHS AND QUANTITIES PRIOR TO ORDERING MATERIALS IN COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
- 7. THE CONTRACTOR IS RESPONSIBLE TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES, HANDHOLES, MANHOLES, CONDUIT ROUTES, AND OTHER EQUIPMENT AND ITEMS FOR A CONTRACTOR REQUESTED PRE CONSTRUCTION INSPECTION BY THE ENGINEER. THE EXACT LOCATIONS OF ALL ITEMS MUST BE APPROVED BY THE ENGINEER PRIOR TO STARTING WORK, ANY WORK INSTALLED WITHOUT LOCATION APPROVAL WILL BE SUBJECT TO CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
- 8. THE CONTRACTOR WILL NOT DE-ENERGIZE ANY EXISTING ELECTRICAL EQUIPMENT WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 9. FURNISH, INSTALL, AND MAINTAIN ADEQUATE TEMPORARY POWER AND LIGHTING REQUIRED FOR CONSTRUCTION. THE CONTRACTOR MUST PAY ALL ENERGY COSTS AND ALL POWER COMPANY COSTS.
- 10. ALL EXISTING AREAS THAT ARE DAMAGED AS PART OF THIS WORK; INCLUDING BUT NOT LIMITED TO FENCING, CURB AND GUTTER, SIDEWALKS, AND WHERE RESTORATION IS NOT COVERED BY THE APPLICABLE SECTIONS OF THE SPECIFICATIONS, MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THIS WORK WILL BE INCLUDED IN THE COST OF THIS CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
- 11. NOTIFY THE UTILITY COMPANIES (SUCH AS COMED, CABLE TV, AMERITECH, ETC.) TO RELOCATE THEIR EXISTING EQUIPMENT LOCATED ON PUBLIC RIGHT OF WAY SPACES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION OF ROADWAY.
- 12. TRENCHED CONDUITS MUST BE INSTALLED AT A MINIMUM DEPTH OF 30" BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREE ROOTS, ROADWAY SEWER DRAINS, SHEET PILING, AND OTHER EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR MUST INCREASE THE DEPTH OF TRENCH AND CONDUITS TO AVOID CONFLICTS AS REQUIRED AT NO ADDITIONAL COST TO IDOT.
- 13. ALL EQUIPMENT, CONDUITS, LIGHT POLES, LIGHTING CONTROLLERS AND CABINET ENCLOSURES MUST BE PROPERLY GROUNDED IN ACCORDANCE WITH THE CITY OF CHICAGO ELECTRICAL CODE REQUIREMENTS. USE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR THROUGHOUT ALL WIRING, PROPERLY BONDED TO POLES, JUNCTION BOXES, CABINETS ETC. AND INCORPORATED IN ALL CIRCUIT RUNS.
- 14. GROUND RODS MUST BE INSTALLED FOR SERVICE GROUNDING AT LIGHTING CONTROLLERS, TEMPORARY LIGHTING UNITS, CONTROLLER FOUNDATION, AND AT EACH CONCRETE POLE FOUNDATION INSTALLED ON EMBANKMENT.
- 15. CONNECTIONS TO THE GROUND RODS MUST BE MADE WITH EXOTHERMIC WELDS, CITY OF CHICAGO APPROVED. THE DRIVEN GROUND ROD ELECTRODES MUST HAVE A LOW RESISTANCE TO THE GROUND NOT TO EXCEED 25 OHMS.
- 16. THE ELECTRIC CABLE PHASE AND NEUTRAL CONDUCTORS MUST BE RUN CONTINUOUS WITHOUT ANY UNDERGROUND SPLICES, LIGHTING CONTROLLER SPLICES, HANDHOLE SPLICES, OR MANHOLE SPLICES. SPLICING OF ELECTRIC CABLE PHASE AND NEUTRAL CONDUCTORS WILL BE PERMITTED ONLY IN THE BASE OF THE EXISTING TO REMAIN OR PROPOSED LIGHT POLES. THIS WORK WILL BE INCLUDED IN THE ELECTRIC CABLE PAY ITEM, SEPARATE PAYMENT WILL NOT BE MADE.
- 17. ALL CABLES ROUTED INTO BRIDGE MOUNTED LIGHT POLES MUST HAVE SUFFICIENT SLACK TO ALLOW FOR ANY EXPANSION AND CONTRACTION OF EXPANSION FITTINGS.
- 18. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM, TEST THE ENTIRE INSTALLATION FOR GROUNDS, SHORTS, IMPROPER INSULATION RESISTANCE OR IMPROPER CONNECTION. APPLY DC VOLTAGE OF 1000 VOLTS FOR MEASUREMENT OF INSULATION RESISTANCE. (USE MOTOR DRIVEN MEGGER INSTRUMENT.)
- 19. THE CONTRACTOR MUST SCHEDULE A FINAL ACCEPTANCE INSPECTION WITH THE ENGINEER AND THE BOE UPON COMPLETION OF ALL PROPOSED LIGHTING WORK, UPON FINAL ACCEPTANCE, THE CONTRACTOR MUST TRANSFER ALL LIGHTING INSTALLATIONS TO THE BOE FOR MAINTENANCE PURPOSES.

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DATE: October 29, 2004

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CIE ENGINEERS

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